

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012378**Date Inspected:** 01-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Bernie Docena, Jesse Cayabyab**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girders (OBG)**Summary of Items Observed:**

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project. The following observations were made:

## 1) OBG field splice welding

1) The QAI observed ABF personnel making complete joint penetration (CJP) welds inside of plate D at OBG Lifts 1E/2E field splice. The QAI noted that the Quality Control (QC) Inspector Bernie Docena is monitoring the welding at this location. The QAI noted that gas shielded flux cored arc welding (FCAW-G) with 1/16" diameter E71T-1M electrode and Ar/CO2 shielding gas with Welding Procedure Specification (WPS) ABF-WPS-D15-3040B-1. The QAI observed that Jordan Hazelaar, ID 6001, and Jeremy Dolman, ID 5042, are making the FCAW-G CJP welds. The QAI noted that Jordan Hazelaar is welding from D0 (the corner at plate C) to D2.5 and that Jeremy Dolman is welding from D15 to D17.5. At the beginning of the welder's shift, the QAI observed the QC Inspector visually examine the areas to be welded. The QC Inspector also conducted magnetic particle testing (MT) on the ends of adjacent splice welds and weld build up (butter) areas. The QC Inspector informed the QAI that the fit-up and butter welds were acceptable and the joints will be welded to completion. See the attached photo. The QAI visually examined the joints and noted that they appear to be generally conforming to the contract requirements. The QAI made random observations of the welding parameters, preheat and interpass temperatures and noted that they appeared to be within the WPS and contract requirements. During the work shift, the QAI also made random observations of the welds beads in the CJP. The QAI noted that the workmanship appeared to be generally conforming to the contract requirements. This work was in progress at the

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# WELDING INSPECTION REPORT

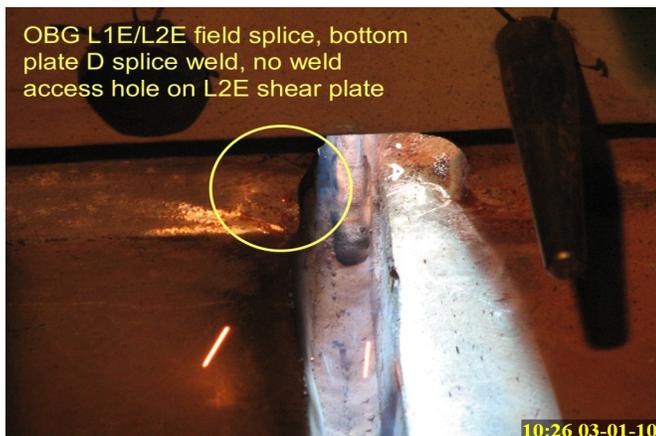
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end of the QAI's shift, the QAI Danny Reyes arrived and assumed the QAI duties.

The QAI also observed that at the side plate to bottom plate transition, the vertical shear plates on OBG lift 2E do not have weld access holes. The QAI asked the QC Inspector Mike Johnson if ABF will make weld access holes. The QAI was informed that ABF is aware of them but there has been no action decided at this time. The QAI noted that there are bolted connection plates that will have to be removed for access to these locations. See the attached photo.



### Summary of Conversations:

The QAI relayed the observations of OBG welding to the QAIs Bill Levell, Rick Bettencourt and Danny Reyes. There were general discussions of the work schedule and the status of the OBG lifts 1E/2E field splice welding. There were no other notable observations or conversations during this shift.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi, (916)813-3677, who represents the Office of Structural Materials for your project.

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**Inspected By:** Croff, Scott

Quality Assurance Inspector

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**Reviewed By:** Levell, Bill

QA Reviewer